

Stereo Cassette Deck **RS-TR272**

Operating Instructions



Technics®



Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

P PC

RQT3798-1P

Dear Customer

Thank you for purchasing this Technics product. For optimum performance and safety, please read these instructions carefully.

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER RS-TR272

SERIAL NUMBER _____

User memo:

DATE OF PURCHASE _____

DEALER NAME _____

DEALER ADDRESS _____

TELEPHONE NUMBER _____

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THE FOLLOWING PHRASES ARE APPLIED ONLY FOR U.S.A.

CAUTION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPLIANCE TO RAIN, SPLASHING, DRIPPING OR MOISTURE.

CAUTION:

TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Precautions

Before using this unit please read these operating instructions carefully. Take special care to follow the warnings indicated on the unit itself as well as the safety suggestions listed below. Afterwards keep them handy for future reference.

Safety

1. **Power Source** -- The unit should be connected to power supply only of the type described in the operating instructions or as marked on the unit.
2. **Polarization** -- If the unit is equipped with a polarized AC power plug (a plug having one blade wider than the other), that plug will fit into the AC outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
3. **Power Cord Protection** -- AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Never take hold of the plug or cord if your hand is wet, and always grasp the plug body when connecting or disconnecting it.
4. **Nonuse Periods** -- When the unit is not used, turn the power off. When left unused for a long period of time, the unit should be unplugged from the household AC outlet.

Installation

Environment

1. **Water and Moisture** -- Do not use this unit near water—for example, near a bathtub, washbowl, swimming pool, or the like. Damp basements should also be avoided.
2. **Heat** -- The unit should be situated away from heat sources such as radiators and the like. It also should not be placed in temperatures less than 5°C (41°F) or greater than 35°C (95°F).

Placement

1. **Ventilation** -- The unit should be situated so that its location or position does not interfere with its proper ventilation. Allow 10 cm (4") clearance from the rear of the unit.
2. **Foreign Material** -- Care should be taken so that objects do not fall into and liquids are not spilled into the unit. Do not subject this unit to excessive smoke, dust, mechanical vibration, or shock.
3. **Magnetism** -- The unit should be situated away from equipment or devices that generate strong magnetic fields.
4. **Stacking** -- Do not place heavy objects, other than system components, on top of the unit.
5. **Surface** -- Place the unit on a flat, level surface.
6. **Carts and Stands** -- The unit should be used only with a cart or stand that is recommended by the manufacturer. The unit and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the unit and cart combination to overturn.
7. **Wall or Ceiling Mounting** -- The unit should not be mounted to a wall or ceiling, unless specified in this operating instructions.



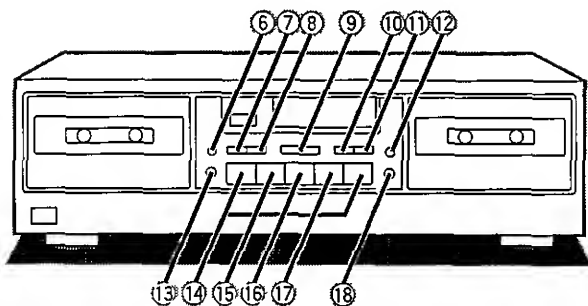
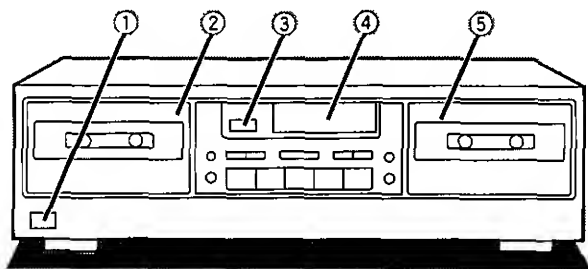
Maintenance (See page 14.)

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution.

Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

Service

1. **Damage Requiring Service** -- The unit should be serviced by qualified service personnel when:
 - (a) The AC power supply cord or the plug has been damaged; or
 - (b) Objects have fallen or liquid has been spilled into the unit; or
 - (c) The unit has been exposed to rain; or
 - (d) The unit does not appear to operate normally or exhibits a marked change in performance; or
 - (e) The unit has been dropped, or the enclosure damaged.
2. **Servicing** -- The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to authorized service personnel. (Only for U.S.A.)
Call 1-800-545-2672 for the address of an authorized factory service center.



Front panel controls

① Power "STANDBY /ON" switch (POWER, STANDBY /ON)

Press to switch the unit from on to standby mode or vice versa
In standby mode, the unit is still consuming a small amount of power

② Cassette holder for deck 1

③ Remote control signal sensor

This cassette deck can be operated by using the remote control provided with a Technics receiver (For detailed information, refer to the operating instructions of the receiver)

④ Display

⑤ Cassette holder for deck 2

⑥ Counter reset button (COUNTER RESET)

⑦ Synchro-start button (SYNCHRO START)

⑧ Tape-to-tape recording-speed button (SPEED, NOR/Hi)

⑨ Tape deck select button (DECK 1/2)

⑩ Dolby noise-reduction button (DOLBY NR)

⑪ Reverse-mode select button (REVERSE MODE)

⑫ Rec pause button (REC PAUSE)

⑬ Open button for deck 1 (OPEN)

⑭ Rewind/fast-forward buttons (,)

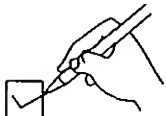
⑮ Reverse-side playback button ()

⑯ Stop button ()

⑰ Forward-side playback button ()

⑱ Open button for deck 2 (OPEN)

Connections



Please check and identify the supplied accessories

Use numbers indicated in parentheses when asking for replacement parts

(Only for U S A)

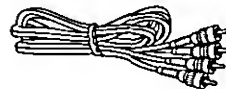
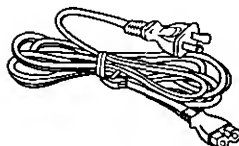
To order accessories call MSC Accessory Dept 1-800-332-5368

☐ AC power supply cord (SJA172)

1 pc

☐ Stereo connection cables (SJP2249-3)

2 pcs



Before making connections, make sure that the power to this unit and all other system components is turned off first

Note

Avoid letting the cables touch each other as much as possible, otherwise noise will be generated

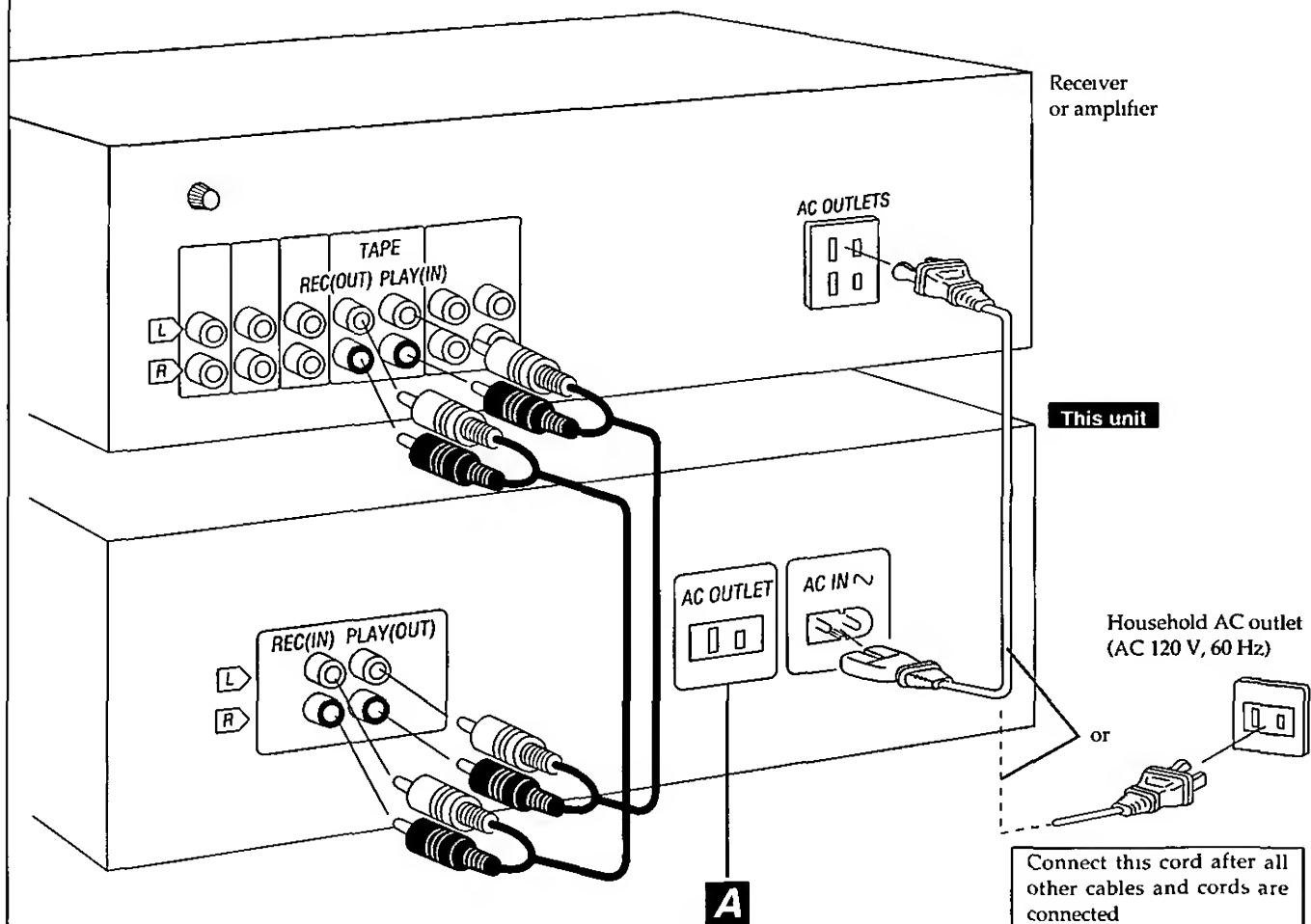
Placements hints

If this unit is placed near a receiver or a tuner, a "hum" noise may be heard during tape playback, recording, or AM reception of the receiver or the tuner

If this occurs, leave as much space as possible between the units, or place them where there is the least amount of "hum"

Stereo connection cable

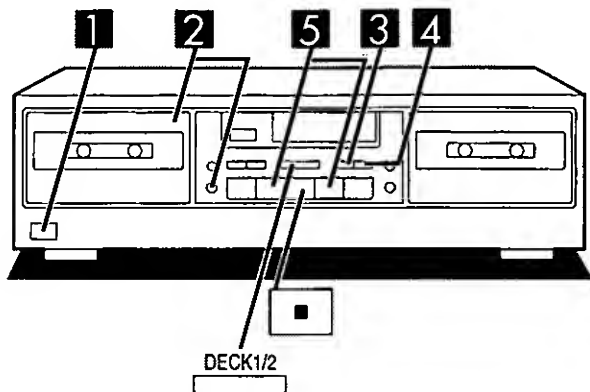
White (L)  
Red (R)  



"AC OUTLET" (UNSWITCHED)

Power is always available, regardless of the unit's power switch setting

Audio equipment rated up to 100 W can be connected



Type of tape which can be played on this unit:

NORMAL POSITION/TYPE I	<input type="radio"/>
HIGH POSITION/TYPE II	<input type="radio"/>
Metal/TYPE IV	<input type="radio"/>

The unit automatically identifies the type of tape.

The procedures described below are an example of playback on Deck 1.

- 1 Press Power.**
(The unit will switch on.)
- 2 Press \blacktriangle OPEN on Deck 1, and then insert the cassette tape.**
Push the cassette holder closed by hand.
To play back on Deck 2, press \blacktriangle OPEN for Deck 2.
- 3 Press DOLBY NR to select the appropriate noise-reduction system.**
Each time the button is pressed, the indicator will change in the order: B \rightarrow C \rightarrow off.
 $\text{B} \rightarrow \text{C} \rightarrow \text{off}$
Select the same type as that used for recording. When playing back a tape which was not recorded using a Dolby NR system, press so that the indicators go off.
- 4 Press REVERSE MODE to select the appropriate reverse mode.**
(Refer to "Reverse function" on page 7.)
Each time the button is pressed, the indicator will change in the order: $\rightleftarrows \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{off}$.
 \rightleftarrows : One side only.
 $\text{B} \rightarrow \text{C}$: Both sides repeatedly (up to 8 times).
 off : Both sides, once only.
- 5 Press \blacktriangleright (or \blacktriangleleft).**
(Playback will begin.)
 \blacktriangleright : To begin from the forward side.
 \blacktriangleleft : To begin from the reverse side.

To stop playback

Press \blacksquare .

To change the Deck to be used **A**

Press DECK 1/2 to select the Deck you want to play.

Each time the button is pressed, the indicator will change: DECK 1 \rightleftarrows DECK 2
(The indicator changes only if a tape is loaded in the other deck.)

1

POWER

STANDBY

2

OPEN

Forward side

Reverse side

Tape opening facing downward.

3

DOLBY NR

DECK 1

B

L -20 -15 -10 -5 -3 0

R

4

REVERSE MODE

DECK 1

B

L -20 -15 -10 -5 -3 0

R

5

DECK 1

B

PLAY

L -20 -15 -10 -5 -3 0

R

Indicates the side being played.

A

DECK 1/2

DECK 2

B

L -20 -15 -10 -5 -3 0

R

About the Dolby noise-reduction system

The Dolby noise-reduction system is designed to effectively reduce the annoying high-frequency "hissing" noise which can occur with cassette tapes. During recording, the system functions to increase the high-frequency sound level, and then, during playback, that same portion is weakened to bring it back to the previous level.

This unit includes two types of Dolby noise-reduction systems, the Dolby B NR-type and C NR-type.

Dolby B-type noise-reduction

Noise is reduced to about one-third.

Use this system when playing back tapes recorded by the Dolby-B noise-reduction system, such as prerecorded music tapes, etc.

Dolby C-type noise-reduction

Noise is reduced to about one-tenth.

Use this system for the recording and playback of sound sources that have a wide dynamic range and good tone quality, such as FM broadcasts of live performances, etc., and for playing back such tapes.




About the Dolby HX-Pro headroom extension system

By functioning improve the maximum output level of the tape's high-frequency range, this system permits recording without a reduction in the level of the sound source's high-frequency range. In addition, by using the system in parallel with this unit's noise-reduction system, recording and playback with a greatly extended dynamic range is possible.




Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

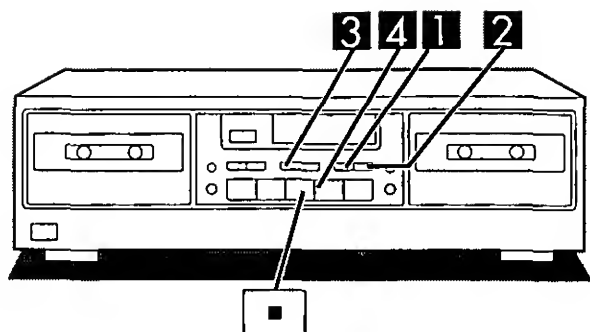
"DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

Reverse function

The reverse function on this unit has three modes (, , ).

Read the descriptions below and select the mode as desired.

Mode	Tape travel
	Only one side of the tape (either the forward side or the reverse side) will be played, and operation will automatically stop when playback has been completed.
	Both sides of the tape will be played repeatedly eight times, and then operation will automatically stop. (If playback is begun from the reverse side, the forward side will be played seven times.)
	When there is a tape in only one of the decks Both sides of the tape will be played once, and then operation will automatically stop. (If playback is begun from the reverse side, the forward side will not be played.) When there is a tape in each of the decks The forward and reverse sides of the tape in Deck 1 will be played, followed by the forward and reverse sides of the tape in Deck 2, and after this operation is repeated eight times, operation will automatically stop. (If playback is begun from Deck 2, the tape in Deck 1 will be played seven times.)



1
DOLBY NR

2
REVERSE MODE

3
DECK 1/2

4

Series playback

Both sides of the tape in Deck 1 will be played, followed by both sides of the tape in Deck 2. (Repeated up to eight times.)

Preparation

Load the tapes to be played into Deck 1 and Deck 2.

Note that for series playback it is not possible to select different types of Dolby NR for Deck 1 and Deck 2. It is recommended that you use two tapes which were recorded using the same type of Dolby NR (or both recorded without Dolby NR).

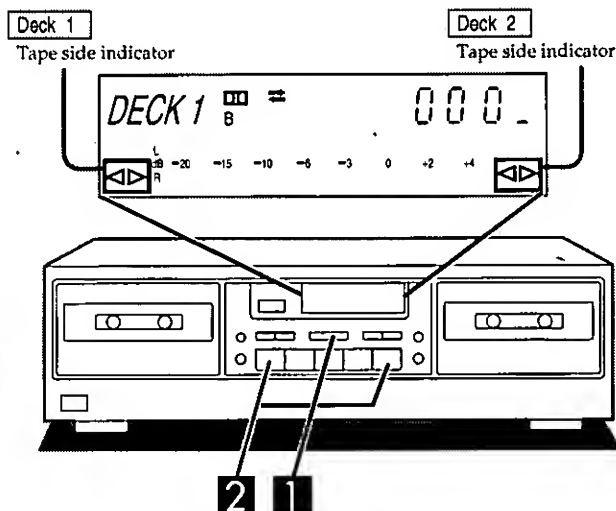
- 1 Press DOLBY NR to select the appropriate noise-reduction system.
- 2 Press REVERSE MODE to select the "∞" mode.
- 3 Press DECK 1/2 to select the Deck 1.
- 4 Press ►.
(Series playback will begin from the forward side of the tape in Deck 1.)

For your reference:

It is also possible to begin series playback from the reverse side of the tape in Deck 1 or from Deck 2. (Refer to the tape travel table on page 7.)

To stop playback

Press ■.



1 Press DECK 1/2 to select the Deck (1 or 2).

2 [In stop mode]
Press ◀◀ or ▶▶.

Because this unit is capable of playing back both sides of the tape, the operation changes in accordance with the direction of the tape side indicator.

Tape side indicator	Rewind	Fast forward
▶	◀◀	▶▶
◀	▶▶	◀◀

• Cassette tapes in Deck 1 and Deck 2 can be advanced or rewound at the same time.

To stop fast-forward or rewind the tape.
Press ■.

Tape counter **B**

The tape counter indicates the amount of tape travel as a numerical value based on the number of revolutions of the tape hub. As you switch between Deck 1 and Deck 2, the tape counter shown on the display changes too.

To reset the tape counter

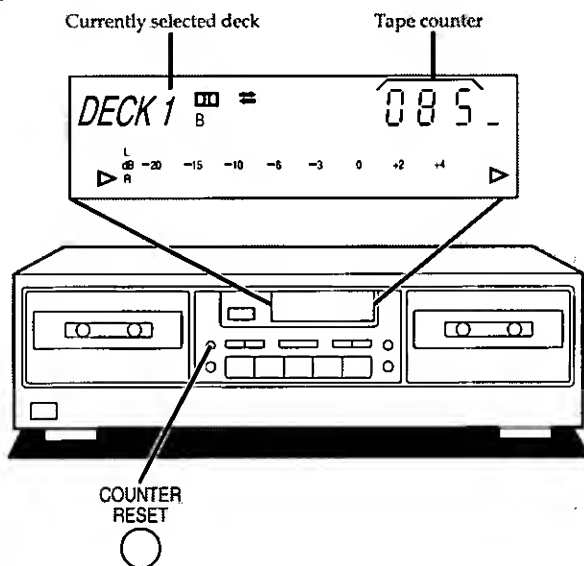
Press COUNTER RESET.

The tape counter of the currently selected deck will revert back to "000", while that of the other deck will remain unchanged.

For your reference:

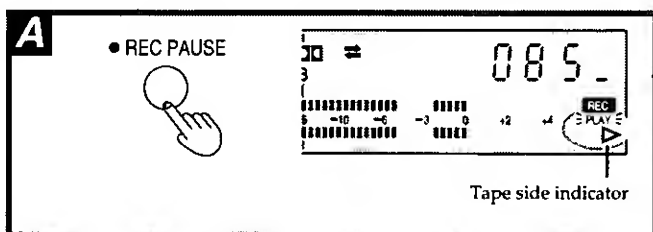
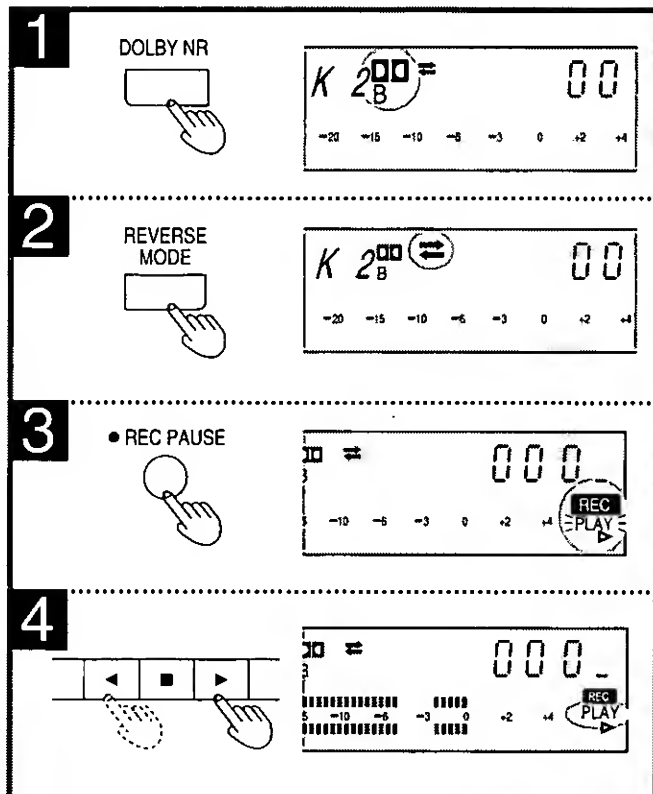
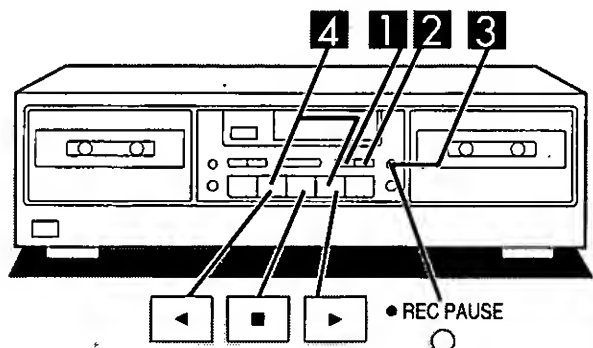
When the tape is traveling in the reverse direction, the value displayed on the tape counter will count down.

After "000" is reached, the display will switch to "999" and will then continue counting down.



COUNTER
RESET





Recording (Deck 2 only)

Type of tape which can be used for recording:

NORMAL POSITION/TYPE I	○
HIGH POSITION/TYPE II	○
Metal/TYPE IV	○

Preparation

Load a tape which has been advanced to the end of the leader tape (the transparent part at both ends of the tape) into Deck 2.

- 1 Press DOLBY NR to select the appropriate noise-reduction system.**
Each time the button is pressed, the indicator will change in the order: B → C → off.

When recording a tape without using a Dolby NR system, press so that the indicators go off.

- 2 Press REVERSE MODE to select the desired reverse mode.**
Each time the button is pressed, the indicator will change in the order: → → ∞ ∞.

→ : Only one side will be recorded, and then operation will automatically stop.

∞ ∞ : Both sides (the forward side first, and then the reverse side) will be recorded, and then operation will automatically stop.

- 3 Press ● REC PAUSE.**
(The unit will be in the recording stand-by mode.)
- 4 Press ► (or ◄) to begin recording, and play the source to be recorded.**
► : To begin recording from the forward side.
◄ : To begin recording the reverse side.

Note

When recording on both sides of the tape, be sure to press the ► button.

To temporarily stop recording

Press ● REC PAUSE.

To resume recording

Press either ◄ or ►, corresponding to the side of the tape side indicator which is lit.

To stop recording

Press ■.

For your reference:

The cassette deck automatically sets recording level.

About the selection of the Dolby NR type

The Dolby NR effect can be obtained by using the same type of Dolby NR during both recording and playback.

Refer to the following table when selecting the type (either B or C).

Type B	Use this type when the deck on which the tape will be played back is equipped with only type B Dolby NR.
Type C	Use this type when the deck on which the tape will be played back is equipped with type C Dolby NR. (For example, when this unit is also going to be used to play back the tape.)

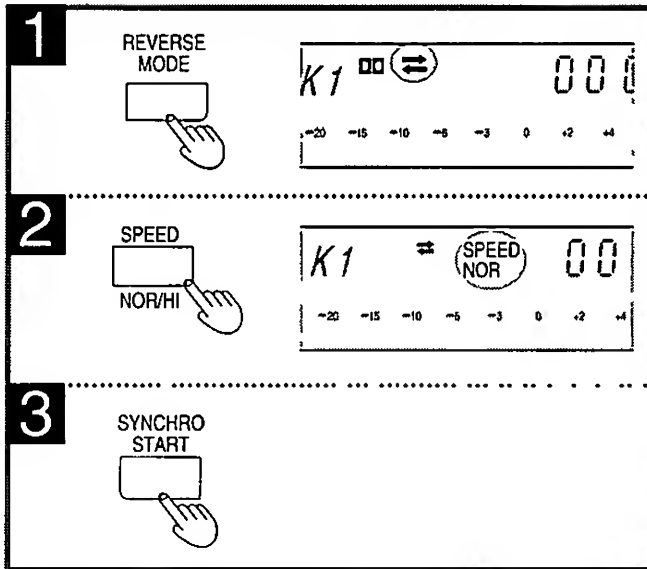
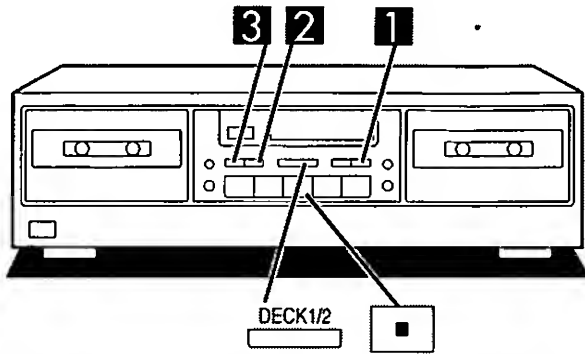
Tape-to-tape recording

Use Deck 2 to record the sound being played back on Deck 1

Preparation

Load tapes which have been advanced to the end of the leader tape into both decks

Deck 1 For playback **Deck 2** For recording



1 Press REVERSE MODE to select the desired reverse mode

Each time the button is pressed, the indicator will change in the order



➡ Only one side of the tape will be recorded, and then operation will automatically stop

↔ Both sides of the tape (first the forward side and then the reverse side) will be recorded, and then operation will automatically stop

If the recording tape is longer than the playback tape, the playback tape will be played repeatedly as many as eight times until the recording tape is finished

⊞ Both sides of the tape (first the forward side and then the reverse side) will be recorded once, and then operation will automatically stop

Note

To record on only one side of the tape, set the tape side indicators (◁ or ▷) on Deck 1 and Deck 2 in accordance with the tape sides to be played back and recorded

To record on both sides of the tape, set the tape side indicators on both Deck 1 and Deck 2 to the forward side (▷)

2 Press SPEED to select the recording speed.

Each time the button is pressed, the indicators will change in the order

NOR → HI → off

NOR normal speed

HI approx double speed

3 Press SYNCHRO START.

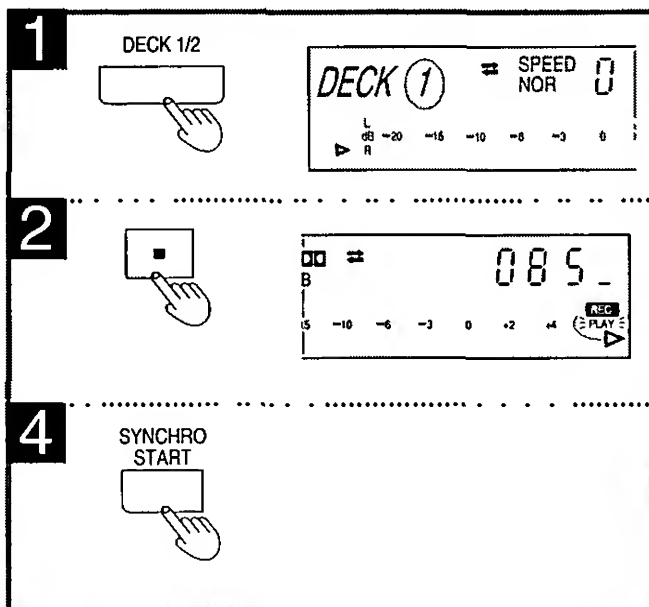
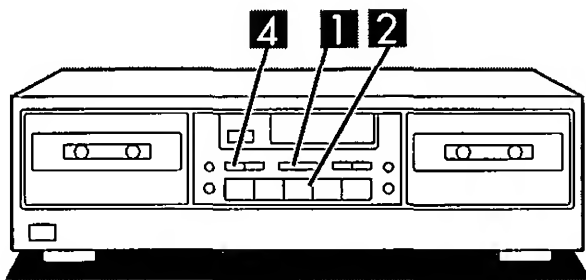
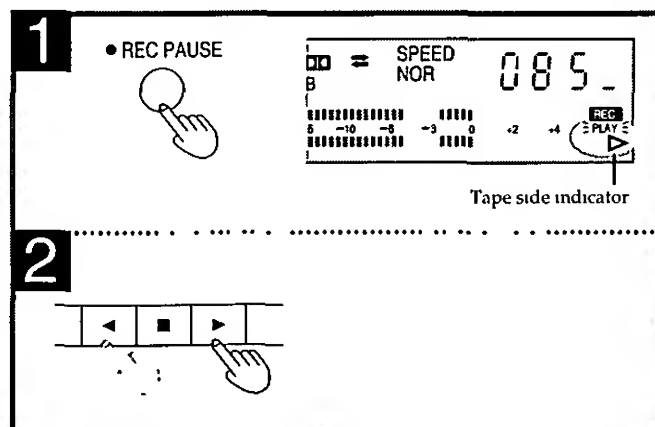
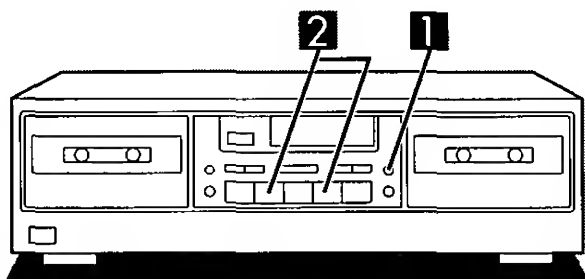
(Recording will begin)

To stop recording

- 1 Press DECK 1/2 to select the Deck2
- 2 Press ■

Note

In order to avoid operation errors later, be sure to switch off the SPEED button (the "NOR" and "HI" indicator will go out) after the tape-to-tape recording has finished

A**B****Tape-to-tape recording****To record selected tracks **A****

- 1** [During recording]
Press **DECK 1/2** to select the Deck 1.
- 2** Press **■**
Deck 1 will stop, and Deck 2 will record a 4-second silent interval and then enter the recording standby mode
- 3** Operate Deck 1 to find the track you wish to record.
It is also possible to change the playback tape at this time
- 4** Press **SYNCHRO START**
(Recording will resume)

To cut unwanted parts during recording **B**

- 1** [During recording]
Press **● REC PAUSE**.
Deck 2, which was recording, will enter the pause mode, and Deck 1 will continue playback
(If you were recording at hi-speed, Deck 1 will change to normal speed while Deck 2 is on pause, but will return to hi-speed when you resume recording)
- 2** [When Deck 1 reaches a part you wish to record]
Press either **◀** or **▶**, corresponding to the side of the tape side indicator which is lit

(Deck 2 will resume recording)

For your reference

- The Dolby effect will be recorded as they are on the tape being played back
- Because the signal being recorded from Deck 1 onto Deck 2 does not pass through the receiver, it is possible to change the setting of the receiver's input selector during recording in order to listen to some other sound source

Note

- When recording with the recording speed set to hi-speed, noise interference may be recorded onto the tape if there is a television set nearby, so make the recording in a location separated from the television set or switch off the television set during recording
- Noise reduction does not work during playback of tape-to-tape recordings. If the tape was recorded with noise reduction, listen at low treble. Lower the treble with the receiver's treble control before playback

Concerning cassette tapes

Selection of cassette tapes

Tapes can get caught on the capstans. Use caution with the following types of tapes.

Cassette tapes exceeding 100 minutes

Tapes are made of a thin film material. Do not repeatedly advance and stop the tape, fast-forward it or rewind it.

Endless tapes

For this unit, it is recommended to use the tape which is appropriate to the auto reverse mechanism.

Always read the instructions provided with your tapes.

Tape slack

Tape slack may cause the tape to break

Erase prevention

Remove the tabs with a screwdriver or a similar object. **B**

To re-record on a protected cassette, cover the slot with adhesive tape. **C**

Do not cover the detection holes on high position and metal tapes.

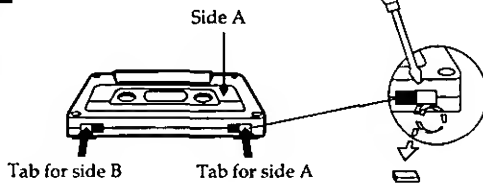
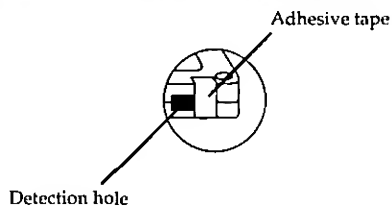
To make blank tapes

1. Insert the recorded tape into deck.
2. Press DOLBY NR so that the Dolby NR indicator is off.
3. Press REVERSE MODE to select reverse mode.
4. Press ● REC PAUSE.
5. Press ◀ or ▶, whichever side you want to erase.

Storage precautions

Do not place or store tapes in the following places.

- In high temperature (35°C or higher) or high humidity (80% or higher) areas.
- In a strong magnetic field (near a speaker, on top of a TV, etc.) This can erase a recording.
- Locations exposed to direct sunlight.

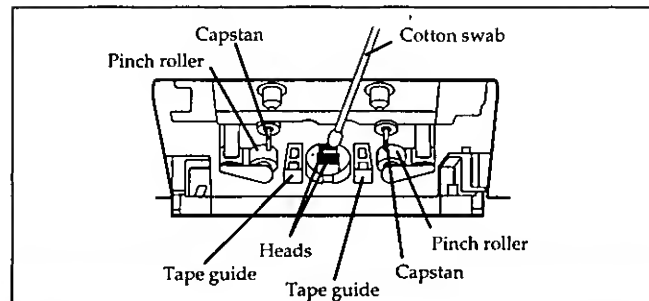
A**B****C**

Head care

To assure good sound quality for recording and playback, be sure to clean the heads after approximately every 10 hours of use.

- 1) Press OPEN to open the cassette holder.
- 2) Switch off the power of the cassette deck.
- 3) Clean the heads, pinch roller and the capstan shaft with a cotton swab (or with a soft, lint-free cloth) slightly moistened with isopropyl alcohol.

Do not use any solution other than alcohol for head cleaning.



Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth, dipped into a soap-and-water solution or a weak detergent solution.

Wring the cloth well before wiping the unit.

Wipe once again with a soft, dry cloth.

Never use alcohol, paint thinner, benzine, nor a chemically treated cloth to clean this unit.

Such chemicals may damage the finish of your unit.

CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4 track, 2 channel
Recording system	AC bias
Bias frequency	80 kHz (approx.)
Erasing system	AC erase

Heads

DECK 1	Playback head (Permalloy)×1
DECK 2	Recording/Playback head (Permalloy)×1
	Erasing head (Double-gap ferrite)×1

Motors

DECK 1	Capstan/Reel table drive (DC servo motor)×1
DECK 2	Capstan/Reel table drive (DC servo motor)×1

Tape speed 4.8 cm/s (1-7/8 ips)

Wow and flutter 0.18% (WRMS)

Fast forward and rewind times

Approx. 120 seconds with C-60 cassette tape

Frequency response (Dolby NR off)

TYPE I (NORMAL)	40 Hz-14 kHz, ±3 dB
	20 Hz-17 kHz
TYPE II (HIGH POSITION)	40 Hz-14 kHz, ±3 dB
	20 Hz-17 kHz
TYPE IV (METAL)	40 Hz-15 kHz, ±3 dB
	20 Hz-18 kHz

S/N (signal level=max recording level, HIGH POSITION type tape)

NR off	54 dB (A weighted)
Dolby B NR on	64 dB (A weighted)
Dolby C NR on	72 dB (A weighted)

Input sensitivity and impedance

REC (IN)	500 mV/47 kΩ
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Output voltage and impedance

PLAY (OUT)	500 mV/500 Ω
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GENERAL

Power supply	AC 120 V, 60 Hz
Power consumption	18 W
Dimensions (W×H×D)	430×136×286 mm
	(16-15/16"×5-5/32"×11-1/4")
Weight	3.8 kg (8.9 lb.)

Note:

Specifications are subject to change without notice.

Weight and dimensions are approximate.

Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the

directory of authorized service centers (enclosed with this unit) to locate a convenient service center, or consult your Technics dealer for instructions.

(In U.S.A. consult MSC Authorized Servicenters for detailed instructions or call 1-800-545-2672 for the address of an authorized factory servicenter.)

Reference pages indicated in black circles. (For example: ⑩)

Problem	Probable cause(s)	Suggested remedy
Tape moves but no sound is heard.	The input selector of the receiver is not set to the "TAPE" position.	• Set to the "TAPE" position.
Previously recorded sound has not been erased.	Erase head is dirty.	• Clean the head. (⑩)
Sound output is hoarse or unsteady.	Heads are dirty.	• Clean the heads. (⑩)
	Tape is damaged.	• Try operation with a new cassette; if there is no problem with the cassette, discard the damaged cassette.
Poor sound quality (especially in the high treble and low bass ranges).	The correct Dolby noise-reduction mode is not set.	• Set to the correct mode. (⑥ ⑦)
Sound is low, poor tone, intermittent sound, noise.	Heads, capstan and/or pinch roller are dirty or tape is damaged.	• Clean the heads, capstan and/or pinch roller, or try a new cassette. (⑩)
There is a lot of noise, and the treble is drowned out.	The heads have been magnetized.	• Demagnetize the heads with a commercially sold magnetic eraser.
A "hum" noise is heard during tape playback or recording.	This unit is placed too close to receiver, amplifier or tuner.	• Leave as much space as possible between the units, or place them where there is the least amount of "hum".
Recording is not possible.	One of the tape-to-tape recording-speed indicators is illuminated.	• Switch OFF whichever tape-to-tape recording speed indicator is illuminated (by pressing the SPEED button). (⑪)
TV noise is accidentally recorded.	This unit is placed near a TV.	• Try placing this unit further away from a TV.

Product service

Do not attempt to remove the cover(s) or repair the unit yourself.

Refer servicing to qualified personnel only.

Product information

For product service, product information or assistance in product operation, refer to the servicenter directory.

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